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14. ABSTRACT During this reporting period, the NRC promoted research opportunities at AMRMC institutes through a broad outreach plan. A total of 12 applications were received during the period and of these, 10 were reviewed by NRC panels. 8 awards were offered and all 8 were accepted. A total of 13 Associates ended their tenure during the reporting period and of these 9 submitted a final report. The productivity of these Associates is listed in the technical report.					
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During the reporting period, the National Academies of Sciences, Engineering, and Medicine (the Academies) NRC conducted the following activities in support of the subject contract:

## **Outreach and Promotion**

The promotional schedule to advertise the NRC Research Associateship Programs included the following: 1) attendance at meetings of major scientific and engineering professional societies; 2) advertising in programs and career centers for these and other professional society meetings; 3) direct mailing and emailing of announcements and program materials to presidents, graduate deans, and heads of appropriate science and engineering departments and minority-affairs offices of all academic degree-granting institutions in the United States; 4) posting announcements on internet job sites, electronic newsletters and professional society websites; 5) print advertising in high profile publications (e.g., Science magazine, the Chronicle of Higher Education); and, 6) maintaining a presence on social media sites such as Facebook.

The Academies attended a number of minority focused events in which we maintained exhibit booths, participated in workshops and advertised in meeting literature, newsletters and websites or submitted materials for distribution. In addition, ads were placed in a variety of minority publications (e.g., Affirmative Action, Black Collegian).

In advertising the Research Opportunities available to prospective applicants, the Academies maintained an up-to-date listing of all active Research Advisers, current Adviser contact information and details of each Research Opportunity.

## **Processing and Review of Applications**

Applications to the Research Associateship Programs were submitted via a web-based application system. Each application cycle opened two months prior to the application deadline. Academies staff provided support to prospective applicants including providing application instructions, technical support and additional information as requested.

A summary of applications for the reporting period is shown in Table 1.

For each applicant, the Academies received and processed an application form, a research proposal, transcripts, a statement of previous and current research, and confidential reference reports. An application file check was made prior to the review and each applicant was notified if required documents were missing.

The Academies convened panels in five broad discipline areas for the competitive review of applications in the NRC Research Associateship Programs. Results of the review were made available to Laboratory Program Representatives immediately following the conclusion of the each review.

A summary of the outcome of the review of applications for the reporting period is shown in Table 1.

## **Administration of Awards**

The Academies made awards to applicants based on sponsor authorization. A summary of awards authorized and the acceptance or declination by the applicant during the current reporting period is shown in Table 1.

For NRC Research Associates beginning or continuing tenure, the Academies provided the administrative functions described in the contract Statement of Work. These functions included stipend payments,

management of a major medical benefits insurance program, and reimbursement for relocation and travel to professional meetings.

A summary of NRC Research Associates on tenure during the reporting period is shown in Table 2.

## **Outcomes Reporting**

All NRC Research Associates who completed tenure were requested to submit a final report that described the outcome of their Research Associateship award. A summary of the activities of NRC Research Associates who submitted final reports during this reporting period, including publications, presentations and patents, as well as an assessment of their experience in the program, are summarized in Table 3. Specific accomplishments of NRC Research Associates completing tenure during the reporting period are summarized in individual Final Reports (attached to annual technical reports).

**Table 1.** Summary of applications and awards

**Table 2.** NRC Research Associates on tenure during the reporting period

**Table 3.** Activities of NRC Research Associates who completed tenure during the reporting period

## AMRMC - U.S. Army Medical Research Institute of Infectious Diseases

**Table 1: Summary of applications and awards**

	Applications			Lab Decision/Outcome		
	Submitted	Reviewed	Recommended	Awards Offered	Awards Accepted	No Offer
May 2012	0	0	0	0	0	0
Aug 2012	2	1	1	1	1	0
Nov 2012	4	2	2	1	1	0
Feb 2013	6	5	5	3	3	2
May 2013	1	1	1	1	1	0
Aug 2013	5	5	5	5	5	0
Nov 2013	5	3	3	1	1	2
Feb 2014	0	0	0	0	0	0
May 2014	4	4	4	2	2	2
Aug 2014	1	1	1	1	1	0
Nov 2014	1	1	1	0	0	1
Feb 2015	3	3	3	2	2	1
May 2015	2	2	2	2	2	0
Aug 2015	2	2	2	2	2	0
Nov 2015	0	0	0	0	0	0
Feb 2016	2	2	2	1	1	0
May 2016	2	2	2	2	2	0
Aug 2016	1	1	1	1	1	0
Nov 2016	1	1	1	1	1	0
Feb 2017	1	1	1	1	1	0
May 2017	0	0	0	0	0	0
Aug 2017	5	5	5	3	2	0
Nov 2017	0	0	0	0	0	0
Feb 2018	0	0	0	0	0	0
Total (All Reviews)	48	42	42	30	29	8

**Table 2: NRC Research Associates on tenure during the reporting period**

Associate	Adviser	Tenure Dates		Final Report
<b>U.S. Army Medical Research Institute of Infectious Diseases</b>				
Andrews, Elizabeth Susanne	Turell, Michael J	5/13/2013-2/26/2016		Received
Arnold, Catherine Elizabeth	Palacios, Gustavo F	9/22/2017-9/21/2018		
Bachert, Beth Alexandra	Bozue, Joel A	1/3/2017-1/2/2018		Received
Bernhards, Robert Cory	Welkos, Susan Lee	7/11/2013-4/29/2016		Received
Bixler, Sandra Lynn	Goff, Arthur James	8/18/2014-11/25/2016		Received
Bounds, Callie Elizabeth	Schmaljohn, Connie	3/1/2011-2/28/2014		Not Recv'd
Brocato, Rebecca Lee	Hooper, Jay W.	1/19/2011-3/13/2013		Received
Coate, Eric Allan	Bozue, Joel A	12/30/2015-2/8/2018		Received
Cohen, Courtney Alicia	Glass, Pamela J	7/28/2014-7/31/2016		Received
Copeland, Anna Maria	Schmaljohn, Connie	1/18/2011-1/17/2014		Received
DeLaine-Elias, BreOnna C.	Palacios, Gustavo F	3/1/2017-4/13/2018		
DeWald, Lisa Marie	Glass, Pamela J	5/7/2012-5/6/2015		Not Recv'd
Duy, Janice	Minogue, Timothy Devins	8/1/2013-2/28/2018		Received
Espy, Nicole Joy	Palacios, Gustavo F	10/2/2017-10/1/2018		
Friedrich, Brian Michael	Hensley, Lisa E.	8/1/2011-6/18/2014		Not Recv'd
Gardner, Christina Lynn	Glass, Pamela J	10/10/2017-10/9/2018		
Haddow, Andrew Douglas	Turell, Michael J	4/15/2014-11/30/2014		Received
Harrell, William Ayers	Smith, Leonard Alan	3/29/2011-3/28/2015		Not Recv'd
Heffron, Jared David	Welkos, Susan Lee	8/16/2010-3/15/2013		Received
Hollidge, Bradley Sherman	Schmaljohn, Connie	5/2/2016-9/30/2017		Received
Huse, Valerie	Minogue, Timothy Devins	9/29/2014-7/29/2016		Received
Johnston, Sara Christine	Goff, Arthur James	3/25/2009-5/1/2012		Received
Kohler, Lara Juliette	Cote, Christopher Kevin	1/17/2017-10/6/2017		Received
Krishnamurthy, Malathy	Panchal, Rekha G.	10/5/2015-10/4/2018		
Kwilas, Steven Alexander	Hooper, Jay W.	4/13/2010-3/31/2014		Received
Lindquist, Michael Edward	Schmaljohn, Connie	3/1/2011-1/15/2014		Received
Maes, Piet	Hooper, Jay W.	12/3/2012-6/2/2014		Received
Maxson, Tucker	Minogue, Timothy Devins	2/1/2017-1/31/2019		
Mielech, Anna Maria	Ulrich, Robert Glenn	2/2/2016-2/1/2019		
Morazzani, Elaine Marie	Glass, Pamela J	12/1/2011-1/31/2014		Received
O'Hearn, Aileen E	Schoepp, Randal J.	4/1/2013-3/31/2016		Received
Rahman, Md. Mizanur	Ahmed, Syed Ashraf	3/1/2011-10/5/2014		Received
Ricks, Keersten Michelle	Schoepp, Randal J.	12/7/2015-12/6/2017		Received
Shoemaker, Charles Jason	Schmaljohn, Connie	2/3/2014-2/2/2017		Received
Smith, Jessica L	Ulrich, Robert Glenn	6/24/2013-6/23/2018		
Stefan, Christopher Patrick	Minogue, Timothy Devins	1/2/2014-1/1/2018		Received
Stojadinovic, Marija	Panchal, Rekha G.	12/1/2014-11/30/2018		
Stonier, Spencer William	Dye, John Michael	8/1/2011-6/30/2014		Received
Suschak, John Joseph	Schmaljohn, Connie	5/1/2017-4/30/2018		
Trefry, John Christopher	Honko, Anna Nichole	7/1/2011-9/23/2013		Received
Tursiella, Melissa Lynne	Schmaljohn, Connie	4/1/2014-3/31/2019		
Zeng, Xiankun	Sun, Mei Guo	5/4/2015-7/31/2016		Received

**Table 3: Activities of NRC Research Associates who completed tenure during the reporting period**

- 31 Associates ended tenure during the report period
- 30 months was the average tenure length
- 54 months was the longest
- 7 months was the shortest
- 27 submitted final reports

In the final reports, Associates indicated the following scholarly activity while on tenure.

- 44 Articles published in refereed journals
- 0 Articles other (Proceedings, Book Chapters, other)
- 48 Domestic presentations
- 8 International presentations
- 1 Patent applications
- 9 Awards

After ending their tenure, Associates indicated their future plans as follows:

- 1 Permanent position at the NRC host agency
- 12 Contract or temporary position at the NRC host agency
- 4 Research/administrative position with another U.S. government agency
- 0 Research/administrative position with foreign government agency
- 0 Research/teaching at US college/university
- 1 Research/teaching position at a foreign college or university
- 2 Research/administrative position in private industry in the U.S.
- 0 Research/administrative position in private industry outside of the U.S.
- 1 Research/administrative position with a non-profit
- 0 Self-employed/consulting
- 1 Postdoctoral Research
- 3 Other
- 2 No information provided

In their final reports, Associates were asked to evaluate certain aspects of their experiences on a scale of 1 (low) to 10 (high). The average rating for each item follows:

- 8.4 Short-term value (lab)-Development of knowledge, skills, and research productivity at lab
- 8.9 Long-term value (career)-How your Research Associateship affected your career to date
- 8.6 Laboratory Support-Equipment, funding, orientation, safety & health training, etc.
- 8.7 Adviser Mentoring-Quality of mentoring from the Research Adviser
- 8.4 LPR Support-Quality of administrative support from the LPR
- 9.1 NRC Support-Quality of administrative support from the NRC